

REMARKS

In view of the above amendments and following remarks, reconsideration and further examination are requested.

By the current Amendment, claims 1-3 and 13 have been amended.

The instant invention pertains to a method for plating a metal film onto a surface of a seed layer of a substrate, and then etching the metal film so as to eliminate a possibility of residual metal becoming detached from the substrate and thereby prevent cross-contamination which might otherwise be caused by such detached metal.

The method comprises plating a metal film onto a surface of a seed layer of a substrate, and ejecting an etching solution only onto a peripheral portion of the metal film for removing the peripheral portion of the metal film and a peripheral portion of the seed layer while holding and rotating the substrate with the peripheral portion of the metal film facing upwardly. Because the peripheral portion of the metal film to which the etching solution is applied faces upwardly, during rotation of the substrate the etching solution will flow outwardly via centrifugal force, whereby the etching solution will selectively remove the metal film and the seed layer from a peripheral portion of the substrate, which will result in a sharp etching boundary as shown in Figure 6, for example. Such accurate removal of the metal film and the seed layer from the peripheral portion of the substrate will prevent cross contamination, during transport or post processing of the substrate, from occurring.

Amended claim 1 is believed to be representative of Applicants' inventive method. In this regard, claim 1 now requires that the etching solution is ejected onto a peripheral portion of the metal film for removing the peripheral portion of the metal film and a peripheral portion of said seed layer while holding and rotating the substrate with **said peripheral portion of said metal film facing upwardly**. Amended claim 1 is believed to be allowable over a combination of Uzoh and Chen for the following reasons.

In Uzoh, an etching solution is only supplied to a back side and side edge of wafer 3 so as to remove metals 11 and 15 therefrom. Neither metal 11 nor metal 15 faces upwardly, and accordingly, contrary to what is required by claim 1, the portions onto which the etching solution is applied do not

face upwardly during rotation of the wafer. Thus, the etching solution does not flow via centrifugal force, and accordingly, a sharp etching boundary cannot be obtained.

Chen does not resolve this deficiency of Uzoh, and accordingly, claim 1 is allowable over Uzoh and Chen either taken alone or in combination.

Additionally, claim 1 also requires that the etching solution is ejected from above the metal film. This feature is lacking from each of Uzoh and Chen, and accordingly, for this additional reason claim 1 is allowable over Uzoh and Chen either taken alone or in combination.

Thus, claims 1-13 are allowable.

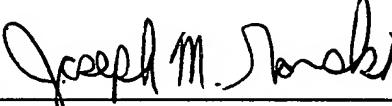
In view of the above amendments and remarks, it is respectfully submitted that the present application is in condition for allowance and an early Notice of Allowance is earnestly solicited.

If after reviewing this Amendment, the Examiner believes that any issues remain which must be resolved before the application can be passed to issue, the Examiner is invited to contact the Applicants' undersigned representative by telephone to resolve such issues.

Respectfully submitted,

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